Navy Environmental Quality Fact Sheet

Do you dispose of Construction and Demolition (C&D) Debris?

Would you like to improve this process in the following areas?

- ***Meet environmental compliance regulations***. Reduce C&D debris disposal and increase diversion from landfills and incinerators.
- ***Improve workers' safety and health***. No change from current operations.
- ***Increase productivity***. Reduce the time required to manage C&D debris compliance requirements.
- ***Save money***. Decrease C&D debris management costs through more efficient collection and increased diversion from landfills and incinerators.

Construction & Demolition Debris

In the United States, approximately 136 million tons of C&D debris is generated annually. When buildings are demolished or constructed, many reusable and reycyclable materials are generated. Naval Facilities Engineering Command Guide Specification (NFGS) 01572 requires the construction and demolition contractor to submit a construction waste management plan to determine the types and quantities of saleable and salvageable construction waste. When the capture of these materials is planned, the demolition process then becomes a process of deconstruction. Before deconstruction, the building must be surveyed for any potentially recyclable and reusable material. Some of these materials, such as architectural components and plumbing fixtures, must be removed before the building is leveled. Other materials, such as concrete and wood framing, can be retrieved from the pile of rubble after the building is leveled. The concrete from the foundation can be ground and used as fill or aggregate. The broken wood framing can be ground in a tub grinder and used as mulch or as a bulking agent for compost. During construction projects, left over building materials in good condition can be piled up for reuse or recycling in a pre-designated area. These practices will greatly reduce the amount of C&D debris that is landfilled or incinerated.

How can you achieve these improvements?

Reuse and recycle C&D debris during demolition and construction projects.

How does this system work?

Consult NFGS 01572 when writing construction and demolition contracts. When there is no contractor, plan the reuse and recycling of C&D debris.

How will this system save you money?

C&D waste diversion will result in landfill cost avoidance as well as revenue from the sale of recyclable and reusable materials.

Typical Process Flow Diagram

MATERIALS
Construction materials
Concrete
Wood

→

PROCESS NAMES
Military Construction
Building Remodeling
Building Demolition

→

WASTE PRODUCTS
Non-compostable C&D debris

How can this method eliminate or reduce pollution?

Reuse and recycling of C&D debris will result in the following pollution reductions:

- Reduce the quantity of solid waste disposed of in landfills and incinerators.
- Reduce emissions from solid waste collection vehicles.

Which operations can benefit most from this method?

Improved management of C&D debris should be practices for all construction and demolition projects. Typical operations impacted include:

- Building Construction and Demolition Operations
- Building Remodeling Projects
- Military Construction (MILCON) Projects

How can this method reduce regulatory compliance concerns?

Reuse and recycling C&D debris will result in the following regulatory compliance benefits:

- May help facilities meet pertinent solid waste reduction goals including the Department of Defense Measure of Merit goal.
- Helps facilities comply with the waste reduction and recycling requirements of Executive Order 13101.

Achieving Environmental Compliance Through Pollution Prevention

Every day the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by using pollution prevention technologies and methods to reduce compliance requirements. This fact sheet is one in a series designed to encourage activities to use pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

For additional information, contact:

Naval Facilities Engineering Command Guide Specification (NFGS)-01572, 30 Sep 1998 (http://www.nfgs.navy.mil/latest/approved/basic/a_bastoc.htm).

Program POC:
(805) 982-5318, DSN 551-5318
E-mail: Fact.Sheet.ProgramPOC@nfesc.navy.mil
Technical POC:
(805) 982-4882, DSN 551-4882